

WHAT IS CLAIMED IS:

1. A transmission comprising:
 - a pump unit for applying hydraulic pressure;
 - a transmission mechanism capable of outputting inputted rotation in variable speed;
 - a pump casing for housing the pump unit, wherein the pump casing is integrated with a mission case for housing the transmission mechanism;
 - a pump drive shaft rotatably fitted in a bearing hole in the pump casing, wherein the pump drive shaft drives the pump unit;
 - a bearing member disposed between the pump drive shaft and the bearing hole;
 - a seal member disposed between the pump drive shaft and the bearing hole, wherein the seal member seals the leakage of oil; and
 - an oil reservoir provided between the seal member and the bearing member; wherein the pump casing is provided with an oil drain passage connecting the oil reservoir with the mission case; and
 - wherein a shielding member is interposed between an opening of the oil drain passage to the mission case and at least part of the transmission mechanism to shield the at least part of the transmission mechanism.
2. The transmission according to claim 1, wherein the transmission mechanism includes
 - a frictional engagement element, and

a hydraulic servo for connecting and disconnecting the frictional engagement element, wherein the hydraulic servo is in a position opposed to the frictional engagement element in the pump casing; and

the shielding member is integrated with a retainer for retaining a piston member of the hydraulic servo and for retaining return springs for the piston member.

3. The transmission according to claim 1, wherein the oil drain passage extends substantially upward and is open above the pump drive shaft.

4. The transmission according to claim 1, wherein the bearing member comprises: a race member in contact with the inner circumference of the bearing hole; a roller housed in the race member so as to be rolling-contact with the pump drive shaft; and

a seal member housed in the race member so as to be located at the end of the roller adjacent to the oil drain passage.

5. The transmission according to claim 2, wherein the oil drain passage extends substantially upward and is open above the pump drive shaft.

6. The transmission according to claim 2, wherein the bearing member comprises: a race member in contact with the inner circumference of the bearing hole; a roller housed in the race member so as to be rolling-contact with the pump drive shaft; and

a seal member housed in the race member so as to be located at the end of the roller adjacent to the oil drain passage.

7. The transmission according to claim 3, wherein the bearing member comprises:
a race member in contact with the inner circumference of the bearing hole;
a roller housed in the race member so as to be rolling-contact with the pump drive shaft; and

a seal member housed in the race member so as to be located at the end of the roller adjacent to the oil drain passage.

8. The transmission according to claim 1, wherein the pump casing is directly fixed to the mission case.

9. The transmission according to claim 2, wherein the pump casing is directly fixed to the mission case.

10. The transmission according to claim 3, wherein the pump casing is directly fixed to the mission case.

11. The transmission according to claim 4, wherein the pump casing is directly fixed to the mission case.